

REMARKS

The Office Action of July 2, 2002 has been carefully considered.

New claims 37-51 have been added to the application. These claims replace use claims 17-19 originally filed with the application, but have been written as product claims. These newly added claims are dependent claims and Applicants submit that they create no new issues for further consideration or search.

Claims 21 through 25, 27 through 34 and 36 have been rejected under 35 USC 103 over Sawada et al.

The invention is directed to aluminum alloy strip with high surface homogeneity produced by twin roll casting. Applicants have discovered that strip produced by twin roll casting has two types of surface defects which limit its use in applications where a very smooth strip of high optical quality is required. The first defect type is ripples in the surface of the strip due to vibration during casting, while the second problem relates to mechanical scratches in the direction of the casting. Applicants have discovered that by recessing the upper lip of the injector by at least 2 mm with respect to the lower lip, a great improvement in the surface quality of the strip produced can be obtained. The specific

process steps necessary to obtain this increase in quality are recited in process claims which have been withdrawn from consideration in the present application. The present claims are directed to the product of that process, a strip with greatly improved surface homogeneity.

The homogeneity itself can be measured by several different processes, and these are set forth in the claims of the application.

Sawada et al discloses aluminum strip produced by twin roll casting and subsequent rolling and which has a grain size of less than 20 mm. The Office action takes the position that since grain size and composition may be the same as the claimed invention, "Sawada et al is capable of achieving the above value" in terms of roughness analysis.

Applicants believe that to the contrary, Sawada et al is not capable of achieving the roughness values of the claimed invention, because these roughness values can be achieved only when one utilizes the process steps specifically set forth in the application, in particular the recess of the injector as discussed above. As evidence of this, attention is directed to the examples of the present application in which it can be seen that aluminum strip produced according to the invention has greatly improved surface homogeneity when

compared to strip produced according to the prior art, casting without recess of the injector, but with all other steps identical. From consideration of these examples, it can be seen that there is no evidence that it is possible to obtain strips of high surface homogeneity unless one utilizes the process which is disclosed in the present application.

Sawada et al discloses a method for producing a planographic printing plate, a plate which must therefore be sufficiently rough to absorb ink. Sawada et al is not concerned with a plate of high surface homogeneity and does not disclose or suggest any method for producing a plate of high surface homogeneity, especially by the process steps disclosed in the present application. Thus, Applicants submit that Sawada et al is not "capable" of achieving the surface homogeneity of the present application because such surface homogeneity is not at all inherent in normal twin roll casting as is disclosed by Sawada et al. To the contrary, strip produced by convention twin roll casting can be expected to have a much lower degree of surface homogeneity, as can be seen from the present examples. Surface homogeneity is not simply a function of grain size and composition as suggested by the Office action, but rather can be greatly improved by the process disclosed in the present application. As Sawada

et al does not disclose any such process, and does not disclose or suggest how to obtain strip without roughness defects and grey level oscillations, Applicants submit that Sawada et al does not disclose or suggest the claimed invention and withdrawal of this rejection is requested.

Claims 26 and 35 have been rejected under 35 USC 103 over Limbach et al.

Limbach et al is not directed to a sheet produced by twin roll casting as is the sheet according to the claimed invention. Moreover, Limbach et al is directed to an aluminum sheet with a rough surface capable of absorbing lithographic ink. Attention is directed to the specific language of Claim 1 of Limbach et al "[r]olled aluminum sheet having a surface that is uniformly rough by virtue of: a rippled topography..." Clearly, Limbach et al desires a rippled topography, which is contrary to the teaching of the present application.

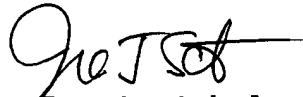
The Office action alleges that since Limbach et al discloses an Ra value of 0.4 mm, and the claimed invention includes a value of 0.2 mm, it would have been obvious to one of ordinary skill in the art to reduce the roughness value to 0.2 mm. However, a simple Ra value is insufficient to characterize the surface of the strip according to the invention since the claimed invention does not simply reduce

roughness, but eliminates to a large degree the ripples which occur inherently during twin roll casting. Since Limbach et al does not teach twin roll casting, and desires a rippled surface, there is no disclosure or suggestion of obtaining a cast aluminum strip having the presently claimed parameters.

Withdrawal of this rejection is requested.

In view of the foregoing amendments and remarks, Applicants submit that the present application is now in condition for allowance. An early allowance of the application is earnestly solicited.

Respectfully submitted,



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